

WHAT IS CLAIMED IS:

1. An awning assembly comprising:

a first support leg;

a second support leg;

a horizontal truss brace having a first end portion attached to an upper portion of the first support leg, and a second end portion attached to an upper portion of the second support leg;

a roller tube attached to the horizontal truss brace;

a first glide rail associated with the first support leg;

a second glide rail associated with the second support leg;

a first glide block movably positioned along the first glide rail;

a first raising/lowering mechanism adapted for raising and lowering the first glide block along the first glide rail;

a second glide block movably positioned along the second glide rail;

a second raising/lowering mechanism adapted for raising and lowering the second glide block along the second glide rail;

a first front arm including a first portion at an end of the first front arm, the first portion being hingedly attached to the first glide block;

a second front arm including a first portion at an end of the second front arm, the first portion being hingedly attached to the second glide block;

a front bar having a first portion attached to a second portion of the first front arm, and a second portion attached to a second portion of the second front arm; and

a first canopy material having a first portion attached to the roller tube, and a second portion attached to the front bar;

a first rear arm including a first portion at an end of the first rear arm, the first portion being hingedly attached to the first glide block;

a second rear arm including a first portion at an end of the second rear arm, the first portion being hingedly attached to the second glide block;

a rear bar having a first portion attached to a second portion of the first rear arm, and a second portion attached to a second portion of the second rear arm; and

a second canopy material having a first portion attached to the roller tube, and a second portion attached to the rear bar.

2. The awning assembly of claim 1, wherein the first raising/lowering mechanism comprises a first glide block ribbon having a first portion attached to the roller tube and a second portion attached to the first glide block.

3. The awning assembly of claim 1, wherein the second raising/lowering mechanism comprises a second glide block ribbon having a first portion attached to the roller tube and a second portion attached to the second glide block.

4. The awning assembly of claim 1, wherein upon rotation of the roller tube in a first direction:

the first raising/lowering mechanism pulls the first glide block in an upward direction, thereby causing an extension of the first front arm and the first rear arm;

the second raising/lowering mechanism pulls the second glide block in an upward direction, thereby causing a simultaneous extension of the second front arm and the second rear arm;

the first canopy material is unwound from the roller tube; and

the second canopy material is unwound from the roller tube, the extension of the first front arm and the second front arm facilitating the extension of the first canopy material, and the extension of the first rear arm and the second rear arm facilitating the extension of the second canopy material.

5. The awning assembly of claim 1, wherein upon rotation of the roller tube in a second direction:

the first raising/lowering mechanism facilitates movement of the first glide block in a downward direction,

thereby causing a retraction of the first front arm and the first rear arm;

the second raising/lowering mechanism facilitates movement of the second glide block in a downward direction, thereby causing a retraction of the second front arm and the second rear arm; and

the first canopy material and the second canopy material are wound upon the roller tube.

6. The awning assembly of claim 1, wherein the first raising/lowering mechanism comprises a first glide block ribbon having a first portion attached to the roller tube and a second portion attached to the first glide block, and the second raising/lowering mechanism comprises a second glide block ribbon having a first portion attached to the roller tube and a second portion attached to the second glide block.

7. The awning assembly of claim 6, wherein upon rotation of the roller tube in a second direction:

the first glide block ribbon is unwound from the roller tube allowing the first glide block to move in a downward direction, thereby causing a retraction of the first front arm and the first rear arm;

the second glide block ribbon is unwound from the roller tube allowing the second glide block to move in a downward direction, thereby causing a retraction of the second front arm and the second rear arm;

the first canopy material and the second canopy material are wound upon the roller tube.

8. The awning assembly of claim 1, further comprising a rotational mechanism for rotating the roller tube in a desired direction.

9. The awning assembly of claim 8, wherein the rotational mechanism comprises at least one of a hand crank and an electric motor.

10. The awning assembly of claim 1, further comprising:

a first base plate attached to a lower portion of the first support leg; and

a second base plate attached to a lower portion of the second support leg.

11. The awning assembly of claim 10, wherein the first base plate and the second base plate are adapted for mounting onto a table.

12. The awning assembly of claim 1, wherein the first support leg and the second support leg are adapted for mounting onto a table.

13. The awning assembly of claim 1, further comprising:

a misting device attached to the horizontal truss brace for dispensing a liquid mist.

14. The awning assembly of claim 1, further comprising:

a first curved truss brace having a first portion attached to the horizontal truss brace, and a second portion attached to the first support leg; and

a second curved truss brace having a first portion attached to the horizontal truss brace, and a second portion attached to the second support leg.

15. The awning assembly of claim 1, wherein the roller tube includes a first slot for attachment of the first canopy material and the second canopy material.

16. The awning assembly of claim 1, wherein the roller tube includes a first slot for attachment of the first canopy material and a second slot for attachment of the second canopy material.

17. The awning assembly of claim 1, wherein the first glide block comprises:

a hollow steel tube having a substantially rectangular cross section;



a steel pipe attached to an inner surface of and oriented along an axis extending from a top to a bottom of the hollow steel tube; and

a fiberglass pipe in contact with an inner surface of the steel pipe in order to allow the first glide block to slide along the first glide rail.

18. An awning assembly comprising:

a roller tube;

a first glide rail;

a second glide rail;

a first glide block movably positioned along the first glide rail;

a first raising/lowering mechanism adapted for raising and lowering the first glide block along the first glide rail;

a second glide block movably positioned along the second glide rail;

a second raising/lowering mechanism adapted for raising and lowering the second glide block along the second glide rail;

a first front arm including a first portion at an end of the first front arm, the first portion being hingedly attached to the first glide block;

a second front arm including a first portion at an end of the second front arm, the first portion being hingedly attached to the second glide block;

a front bar having a first portion attached to a second portion of the first front arm, and a second portion attached to a second portion of the second front arm; and

a first canopy material having a first portion attached to the roller tube, and a second portion attached to the front bar.

19. The awning assembly of claim 18, wherein the first glide rail and the second glide rail are adapted to be mounted to a vertical surface.

20. The awning assembly of claim 18 further comprising:

a first support leg associated with the first glide rail;

a second support leg associated with the second glide rail; and

a horizontal truss brace having a first end portion attached to an upper portion of the first support leg, and a second end portion attached to an upper portion of the second support leg, wherein the roller tube is attached to the horizontal truss brace.

21. The awning assembly of claim 18, wherein the first raising/lowering mechanism comprises a first glide block ribbon having a first portion attached to the roller tube and a second portion attached to the first glide block.

22. The awning assembly of claim 18, wherein the second raising/lowering mechanism comprises a second glide block ribbon having a first portion attached to the roller tube and a second portion attached to the second glide block.

23. The awning assembly of claim 18, wherein upon rotation of the roller tube in a first direction:

the first raising/lowering mechanism pulls the first glide block in an upward direction, thereby causing an extension of the first front arm;

the second raising/lowering mechanism pulls the second glide block in an upward direction, thereby causing an extension of the second front arm; and

the first canopy material is unwound from the roller tube, the extension of the first front arm and the second front arm facilitating the extension of the first canopy material to form a canopy.

24. The awning assembly of claim 18, wherein upon rotation of the roller tube in a second direction:

the first raising/lowering mechanism facilitates movement of the first glide block in a downward direction, thereby causing a retraction of the first front arm;

the second raising/lowering mechanism facilitates movement of the second glide block in a downward direction, thereby causing a retraction of the second front arm; and

the first canopy material is wound upon the roller tube.

25. The awning assembly of claim 18, wherein the first raising/lowering mechanism comprises a first glide block ribbon having a first portion attached to the roller tube and a second portion attached to the first glide block, and the second raising/lowering mechanism comprises a second glide block ribbon having a first portion attached to the roller tube and a second portion attached to the second glide block.

26. The awning assembly of claim 25, wherein upon rotation of the roller tube in a second direction:

the first glide block ribbon is unwound from the roller tube allowing the first glide block to move in a downward direction, thereby causing a retraction of the first front arm;

the second glide block ribbon is unwound from the roller tube allowing the second glide block to move in a downward direction, thereby causing a retraction of the second front arm; and

the first canopy material is wound upon the roller tube.

27. The awning assembly claim 18, further comprising:

a first rear arm including a first portion at an end of the first rear arm, the first portion being hingedly attached to the first glide block;

a second rear arm including a first portion at an end of the second rear arm, the first portion being hingedly attached to the second glide block;

a rear bar having a first portion attached to a second portion of the first rear arm, and a second portion attached to a second portion of the second rear arm; and

a second canopy material having a first portion attached to the roller tube, and a second portion attached to the rear bar.

28. The awning assembly of claim 27, wherein upon rotation of the roller tube in a first direction:

the first raising/lowering mechanism pulls the first glide block in an upward direction, thereby causing an extension of the first front arm and the first rear arm;

the second raising/lowering mechanism pulls the second glide block in an upward direction, thereby causing a simultaneous extension of the second front arm and the second rear arm;

the first canopy material is unwound from the roller tube; and

the second canopy material is unwound from the roller tube, the extension of the first front arm and the second front arm facilitating the extension of the first canopy material, and the extension of the first rear arm and the second rear arm facilitating the extension of the second canopy material.

29. The awning assembly of claim 27, wherein upon rotation of the roller tube in a second direction:

the first raising/lowering mechanism facilitates movement of the first glide block in a downward direction,

thereby causing a retraction of the first front arm and the first rear arm;

the second raising/lowering mechanism facilitates movement of the second glide block in a downward direction, thereby causing a retraction of the second front arm and the second rear arm;

the first canopy material and the second canopy material are wound upon the roller tube.

30. The awning assembly of claim 18, wherein the first raising/lowering mechanism comprises a first glide block ribbon having a first portion attached to the roller tube and a second portion attached to the first glide block, and the second raising/lowering mechanism comprises a second glide block ribbon having a first portion attached to the roller tube and a second portion attached to the second glide block.

31. The awning assembly of claim 30, wherein upon rotation of the roller tube in a second direction:



the first glide block ribbon is unwound from the roller tube allowing the first glide block to move in a downward direction, thereby causing a retraction of the first front arm and the first rear arm;

the second glide block ribbon is unwound from the roller tube allowing the second glide block to move in a downward direction, thereby causing a retraction of the second front arm and the second rear arm;

the first canopy material and the second canopy material are wound upon the roller tube.

32. The awning assembly of claim 18, further comprising a rotational mechanism for rotating the roller tube in a desired direction.

33. The awning assembly of claim 32, wherein the rotational mechanism comprises at least one of a hand crank and an electric motor.

34. The awning assembly of claim 20, further comprising:

a first base plate attached to a lower portion of the first support leg; and

a second base plate attached to a lower portion of the second support leg.

35. The awning assembly of claim 34, wherein the first base plate and the second base plate are adapted for mounting onto a table.

36. The awning assembly of claim 20, wherein the first support leg and the second support leg are adapted for mounting onto a table.

37. The awning assembly of claim 20, further comprising:

a misting device attached to the horizontal truss brace for dispensing a liquid mist.

38. The awning assembly of claim 20, further comprising:

a first curved truss brace having a first portion attached to the horizontal truss brace, and a second portion attached to the first support leg; and

a second curved truss brace having a first portion attached to the horizontal truss brace, and a second portion attached to the second support leg.

39. The awning assembly of claim 18, wherein the roller tube includes a first slot for attachment of the first canopy material.

40. The awning assembly of claim 27, wherein the roller tube includes a first slot for attachment of the first canopy material and the second canopy material.

41. The awning assembly of claim 27, wherein the roller tube includes a first slot for attachment of the first canopy material and a second slot for attachment of the second canopy material.

42. The awning assembly of claim 18, wherein the first glide block comprises:

a hollow steel tube having a substantially rectangular cross section;

a steel pipe attached to an inner surface of and oriented along an axis extending from a top to a bottom of the hollow steel tube; and

a fiberglass pipe in contact with an inner surface of the steel pipe in order to allow the first glide block to slide along the first glide rail.